



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2011-1251; Directorate Identifier 2011-NM-017-AD]

RIN 2120-AA64

Airworthiness Directives; Empresa Brasileira de Aeronautica S.A. (EMBRAER)

Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: We propose to adopt a new airworthiness directive (AD) for all Empresa Brasileira de Aeronautica S.A. (EMBRAER) Model ERJ 190 airplanes. This proposed AD results from mandatory continuing airworthiness information (MCAI) originated by an aviation authority of another country to identify and correct an unsafe condition on an aviation product. The MCAI describes the unsafe condition as:

It has been found the occurrence of damage on the rod end of the Main Landing Gear (MLG) retraction actuator. The ANAC [Agência Nacional de Aviação Civil] is issuing this AD to prevent breakage of the MLG retracting actuator rod, which may result in MLG extension with no hydraulic damping and consequent damage to the locking mechanism and collapse of the MLG.

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The proposed AD would require actions that are intended to address the unsafe condition described in the MCAI.

DATES: We must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments by any of the following methods:

- Federal eRulemaking Portal: Go to <http://www.regulations.gov>. Follow the instructions for submitting comments.
- Fax: (202) 493-2251.
- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.
- Hand Delivery: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-40, 1200 New Jersey Avenue SE., Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this proposed AD, contact Empresa Brasileira de Aeronautica S.A. (EMBRAER), Technical Publications Section (PC 060), Av. Brigadeiro Faria Lima, 2170 - Putim - 12227-901 São Jose dos Campos - SP – BRASIL; telephone +55 12 3927-5852 or +55 12 3309-0732; fax +55 12 3927-7546; e-mail distrib@embraer.com.br; Internet <http://www.flyembraer.com>. You may review copies of the referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, Washington. For information on the availability of this material at the FAA, call 425-227-1221.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov>;

or in person at the Docket Operations office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Operations office (telephone (800) 647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Cindy Ashforth, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue SW., Renton, Washington 98057-3356; telephone (425) 227-2768; fax (425) 227-1149.

SUPPLEMENTARY INFORMATION:

Comments Invited

We invite you to send any written relevant data, views, or arguments about this proposed AD. Send your comments to an address listed under the ADDRESSES section. Include “Docket No. FAA-2011-1251; Directorate Identifier 2011-NM-017-AD” at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this proposed AD. We will consider all comments received by the closing date and may amend this proposed AD based on those comments.

We will post all comments we receive, without change, to <http://www.regulations.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this proposed AD.

Discussion

The Agencia Nacional De Aviacao Civil – Brazil (ANAC), which is the airworthiness authority for Brazil, has issued Brazilian Airworthiness Directive 2011-02-01, dated February 12, 2011 (referred to after this as “the MCAI”), to correct an unsafe condition for the specified products. The MCAI states:

It has been found the occurrence of damage on the rod end of the Main Landing Gear (MLG) retraction actuator. The ANAC [Agência Nacional de Aviação Civil] is issuing this AD to prevent breakage of the MLG retracting actuator rod, which may result in MLG extension with no hydraulic damping and consequent damage to the locking mechanism and collapse of the MLG.

* * * * *

Required actions include performing a one-time general visual inspection to determine if a certain part number is installed on the left-hand and right-hand MLG retraction actuator, and if necessary, performing a general visual inspection for discrepancies (such as cracks, damage, and movement) between the actuator rod end and shock strut lug of the MLG retraction actuator. The corrective action includes, if any discrepancy is found during any inspection, including any movement between the actuator rod-end and shock strut lug, replacing the MLG retraction actuator, and as applicable the anti-rotation pin and the attachment bolt with a new pin and bolt; and replacing the actuator with new actuator having a certain part number, and modifying the attachment points. You may obtain further information by examining the MCAI in the AD docket.

Relevant Service Information

EMBRAER has issued Service Bulletin 190-32-0036, dated October 4, 2010; and

Service Bulletin 190-32-0037, dated October 6, 2010. The actions described in this service information are intended to correct the unsafe condition identified in the MCAI.

FAA's Determination and Requirements of This Proposed AD

This product has been approved by the aviation authority of another country, and is approved for operation in the United States. Pursuant to our bilateral agreement with the State of Design Authority, we have been notified of the unsafe condition described in the MCAI and service information referenced above. We are proposing this AD because we evaluated all pertinent information and determined an unsafe condition exists and is likely to exist or develop on other products of the same type design.

Differences Between This AD and the MCAI or Service Information

We have reviewed the MCAI and related service information and, in general, agree with their substance. But we might have found it necessary to use different words from those in the MCAI to ensure the AD is clear for U.S. operators and is enforceable. In making these changes, we do not intend to differ substantively from the information provided in the MCAI and related service information.

We might also have proposed different actions in this AD from those in the MCAI in order to follow FAA policies. Any such differences are highlighted in a NOTE within the proposed AD.

Costs of Compliance

Based on the service information, we estimate that this proposed AD would affect about 73 products of U.S. registry. We also estimate that it would take about 1 work-hour per product to comply with the basic requirements of this proposed AD. The average

labor rate is \$85 per work-hour. Based on these figures, we estimate the cost of the proposed AD on U.S. operators to be \$6,205, or \$85 per product.

In addition, we estimate that any necessary follow-on actions would take about 6 work-hours and require parts costing \$0, for a cost of \$510 per product. Where the service information lists required parts costs that are covered under warranty, we have assumed that there will be no charge for these parts. As we do not control warranty coverage for affected parties, some parties may incur costs higher than estimated here. We have no way of determining the number of products that may need these actions.

Authority for This Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. "Subtitle VII: Aviation Programs," describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in "Subtitle VII, Part A, Subpart III, Section 44701: General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

We determined that this proposed AD would not have federalism implications

under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

1. Is not a “significant regulatory action” under Executive Order 12866;
2. Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979); and
3. Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

We prepared a regulatory evaluation of the estimated costs to comply with this proposed AD and placed it in the AD docket.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new AD:

Empresa Brasileira de Aeronautica S.A. (EMBRAER): Docket No. FAA-2011-1251;
Directorate Identifier 2011-NM-017-AD.

Comments Due Date

(a) We must receive comments by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

Affected ADs

(b) None.

Applicability

(c) This AD applies to Empresa Brasileira de Aeronautica S.A. (EMBRAER) Model ERJ 190-100 STD, -100 LR, -100 ECJ, and -100 IGW airplanes; and Model ERJ 190-200 STD, -200 LR, and -200 IGW airplanes; certificated in any category; all serial numbers.

Subject

(d) Air Transport Association (ATA) of America Code 32: Landing Gear.

Reason

(e) The mandatory continuing airworthiness information (MCAI) states:

It has been found the occurrence of damage on the rod end of the Main Landing Gear (MLG) retraction actuator. The ANAC [Agência Nacional de Aviação Civil] is issuing this AD to prevent breakage of the MLG retracting actuator rod, which may result in MLG extension with no hydraulic damping and consequent damage to the locking mechanism and collapse of the MLG.

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Compliance

(f) You are responsible for having the actions required by this AD performed within the compliance times specified, unless the actions have already been done.

Actions

(g) Within 30 days after the effective date of this AD, do a one-time general visual inspection to determine if part number (P/N) 190-70980-403 is installed on the left-hand and right-hand MLG retraction actuator. A review of airplane maintenance records is acceptable in lieu of this inspection if the part number of the MLG retraction actuator can be conclusively determined from that review.

Note 1: For the purpose of this AD, a general visual inspection (GVI) is: "A visual examination of an interior or exterior area, installation or assembly to detect obvious damage, failure or irregularity. This level of inspection is made from within touching distance, unless otherwise specified. A mirror may be necessary to enhance visual access to all exposed surfaces in the inspection area. This level of inspection is made under normally available lighting conditions such as daylight, hangar lighting, flashlight or droplight, and may require removal or opening of access panels or doors. Stands, ladders or platforms may be required to gain proximity to the area being checked."

(1) No further action is required by paragraph (g) of this AD if no MLG retraction actuator having P/N 190-70980-403 is found.

(2) If any MLG retraction actuator having P/N 190-70980-403 is found, do a GVI of the actuator and bolt (P/N 2821-0028) for discrepancies (such as cracks, damage, and

movement between the actuator rod end and shock strut lug of the MLG retraction actuator), in accordance with “Part I” of the Accomplishment Instructions of EMBRAER Service Bulletin 190-32-0036, dated October 4, 2010, within the applicable compliance time specified in paragraphs (g)(2)(i) and (g)(2)(ii) of this AD. Repeat the inspection, thereafter, at intervals not to exceed 3,500 flight cycles, until the actions required by paragraph (j) of this AD are done.

(i) For any MLG retraction actuator that has accumulated fewer than 3,500 total flight cycles as the effective date of this AD, do the GVI of the actuator before the accumulation of 4,500 total flight cycles on the MLG retraction actuator.

(ii) For any MLG retraction actuator that has accumulated 3,500 total flight cycles or more as of the effective date of this AD, do the GVI of the actuator within 1,000 flight cycles after the effective date of this AD.

(h) If any discrepancy is found during any inspection required by paragraph (g)(2) of this AD, including any movement between the actuator rod-end and shock strut lug, before further flight, replace the MLG retraction actuator, and as applicable the anti-rotation pin and the attachment bolt, in accordance with “Part II” and “Part III,” as applicable, of EMBRAER Service Bulletin 190-32-0036, dated October 4, 2010; except where EMBRAER Service Bulletin 190-32-0036, dated October 4, 2010, specifies to contact the manufacturer, before further flight repair in accordance with a method approved by the Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA, or Agência Nacional de Aviação Civil (or its delegated agent).

(i) Before any MLG retraction actuator having P/N 190-70980-403 accumulates

12,000 total flight cycles or within 1,000 flight cycles after the effective date of this AD, whichever occurs later, replace the actuator with new actuator having P/N 190-70980-405, and modify the attachment points, in accordance with “Part I” and “Part II,” as applicable, of the Accomplishment Instructions of EMBRAER Service Bulletin 190-32-0037, dated October 6, 2010.

(j) For all actuators: Within 20,000 flight cycles or within 96 months after the effective date of this AD, whichever occurs first, do the replacement and modification, as applicable, in accordance with “Part III” of EMBRAER Service Bulletin 190-32-0037, dated October 6, 2010. Doing the actions in this paragraph is a terminating action for the requirements specified in paragraphs (g), (h), and (i) of this AD.

FAA AD Differences

Note 2: This AD differs from the MCAI and/or service information as follows: Brazilian Airworthiness Directive 2011-02-01, dated February 12, 2011, requires replacing the MLG retraction actuator, and as applicable, the anti-rotation pin and attachment bolt within the next 500 flight cycles if any discrepancy is found. However, if any discrepancy is found, this AD requires replacing the MLG retraction actuator, and as applicable, the anti-rotation pin and attachment bolt, before further flight.

Other FAA AD Provisions

(k) The following provisions also apply to this AD:

(1) **Alternative Methods of Compliance (AMOCs):** The Manager, International Branch, ANM-116, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send

your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the International Branch, send it to ATTN: Cindy Ashforth, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue SW., Renton, Washington 98057-3356; telephone (425) 227-2768; fax (425) 227-1149. Information may be e-mailed to: 9-ANM-116-AMOC-REQUESTS@faa.gov. Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office. The AMOC approval letter must specifically reference this AD.

(2) **Airworthy Product:** For any requirement in this AD to obtain corrective actions from a manufacturer or other source, use these actions if they are FAA-approved. Corrective actions are considered FAA-approved if they are approved by the State of Design Authority (or their delegated agent). You are required to assure the product is airworthy before it is returned to service.

Related Information

(l) Refer to MCAI Brazilian Airworthiness Directive 2011-02-01, dated February 12, 2011; EMBRAER Service Bulletin 190-32-0036, dated October 4, 2010; and EMBRAER Service Bulletin 190-32-0037, dated October 6, 2010; for related information.

Issued in Renton, Washington, on November 10, 2011.

Kalene C. Yanamura,
Acting Manager,
Transport Airplane Directorate,
Aircraft Certification Service.

[FR Doc. 2011-30571 Filed 11/25/2011 at 8:45 am; Publication Date: 11/28/2011]